

**Commonwealth of Kentucky**  
**Division for Air Quality**  
***PERMIT STATEMENT OF BASIS***

TITLE V DRAFT NO. V-03-045 (R1)  
CUSTOM RESINS, INC.  
HENDERSON, KY.  
OCTOBER 30, 2006  
MIN WANG, REVIEWER  
PLANT I.D. # 021-101-00104  
APPLICATION LOG # 50668, AI#: 1797, APE#: 20060001

**SOURCE DESCRIPTION:**

Custom Resins manufactures nylon 6 polymer by polymerizing e-caprolactam monomer, extracting the unreacted monomer from the polymer, then drying the polymer to a water content less than 0.1%.

**MINOR REVISION NUMBER 1:**

Custom Resins, Inc. applied for replacing their Boiler 1 (EP35, 27.5 mmBTU/hr) using a rental unit (39 mmBTU/hr), and the unit uses natural gas. Since PTE of the criteria pollutants emission from this rental unit will exceed 5 TPY but less than significant levels triggering PSD review and there is no change of recordkeeping and monitoring requirements involved, pursuant to 401 KAR 52:020 Section 14, a title V minor revision is needed for this application. Since it was decided that treating this rental unit as an existing unit would be more appropriate, 40 CFR 60 Subpart Dc: Standards of Performance for Small Industrial-Commercial Steam Generation Units does not apply. The change made to the original permit is as follows:

1. EP 35: Rental Boiler's information replaced original Boiler #1's information. The heating capacity of the rental unit is 39 mmBtu/hr instead of 27.5 mmBtu/hr for the original Boiler #1. No change of recordkeeping and monitoring requirements was made.

**COMMENTS:**

The source is a Title V major source due to emissions of VOCs, PM10, and HAPs. The source is exempt from PSD because it was originally constructed before the applicability date; all projects constructed after that date were not considered major modifications under PSD.

Source-wide potential emissions of regulated air pollutants for Custom Resins are as follows:

**HAPS : 36.7 tons/yr**  
**PM10: 389 tons/yr**  
**SO2: 0.14 tons/yr**  
**NOx: 23.6 tons/yr**  
**VOC: 114 tons/yr**  
**CO: 19.8 tons/yr**

The following table, beginning on the next page, is a summary of all emission points at this source, with applicable regulations, exemptions, and construction dates:

<b><u>EMISSION POINT</u></b>	<b><u>APPLICABLE REGULATION</u></b>	<b><u>REGULATORY EXEMPTIONS</u></b>	<b><u>CONSTRUCTION DATE</u></b>
01: Monomer Storage Tank	40 CFR 60, Subpart VV	40 CFR 60, Subpart Kb (exempt by date)	1984
02: Monomer Storage Tank	40 CFR 60, Subpart VV	40 CFR 60, Subpart Kb (exempt by date)	1984
03: Monomer Storage Tank	401 KAR 50:055	40 CFR 60, Subpart VV (exempt by date); 40 CFR 60, Subpart Kb (exempt by date)	1957
04: Measure Tank	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1957
05: Additives Mixing	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1957
06: Additives Mixing	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1957
07: Additives Mixing	401 KAR 59:010	40 CFR 60, Subpart RRR (exempt by date)	1977
08: Additives Mixing	401 KAR 59:010	40 CFR 60, Subpart RRR (exempt by date)	1989
09: Additives Mixing	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1964
10: Feed Tank	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1977
11: Feed Tank	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1977
12: Polymerization	401 KAR 61:020	40 CFR 60, Subpart RRR (exempt by date)	1957
13: Polymerization	401 KAR 61:020	40 CFR 60, Subpart RRR (exempt by date)	1957
14: Polymerization	401 KAR 59:010	40 CFR 60, Subpart RRR (exempt by date)	1977
15: Polymerization	401 KAR 59:010	40 CFR 60, Subpart RRR (exempt by date)	1989

<b><u>EMISSION POINT</u></b>	<b><u>APPLICABLE REGULATION</u></b>	<b><u>REGULATORY EXEMPTIONS</u></b>	<b><u>CONSTRUCTION DATE</u></b>
16: Polymerization	401 KAR 61:020	40 CFR 60, Subpart RRR (exempt by date)	1964
17: Extraction	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1957
18: Extraction	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1957
19: Extraction	401 KAR 59:010	40 CFR 60, Subpart VV (exempt due to heavy liquid service and VOC less than 10% by weight)	1985
20: Extraction	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1975
21: Extraction	401 KAR 59:010	40 CFR 60, Subpart VV (exempt due to heavy liquid service and VOC less than 10% by weight)	1989
22: Extraction	401 KAR 59:010	40 CFR 60, Subpart VV (exempt by date)	1977
23: Vacuum Dryer	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1957
24: Vacuum Dryer	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1957
25: Vacuum Dryer	401 KAR 59:010	40 CFR 60, Subpart VV (exempt due to heavy liquid service and VOC less than 10% by weight)	1985
26: Vacuum Dryer	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1957

<b><u>EMISSION POINT</u></b>	<b><u>APPLICABLE REGULATION</u></b>	<b><u>REGULATORY EXEMPTIONS</u></b>	<b><u>CONSTRUCTION DATE</u></b>
27: Vacuum Dryer	401 KAR 59:010	40 CFR 60, Subpart VV (exempt due to heavy liquid service and VOC less than 10% by weight)	1989
28: Vacuum Dryer	401 KAR 59:010	40 CFR 60, Subpart VV (exempt by date)	1977
29: Vacuum Dryer	401 KAR 61:020	401 KAR 61:175 (exempt by date); 40 CFR 60, Subpart VV (exempt by date)	1957
30: Weak Wash Water Tank	None	40 CFR 60, Subpart Kb (exempt due to vapor pressure < 3.5kPa)	1988
31: Weak Wash Water Tank	None	40 CFR 60, Subpart Kb (exempt due to vapor pressure < 3.5kPa)	1988
32: Strong Wash Water Storage	None	40 CFR 60, Subpart Kb (exempt by date)	1964
33: Evaporator	40 CFR 60, Subpart VV	40 CFR 60.482 (exempt due to heavy liquid feed)	1986
34: Evaporator	40 CFR 60, Subpart VV	40 CFR 60.482 (exempt due to heavy liquid feed)	1984
35: Boiler #1	401 KAR 59:015	40 CFR 60 Subpart Da, Db (exempt by heat input rate); 40 CFR 60 Subpart Dc (exempt by date)	1986
36: Boiler #2	401 KAR 59:015	40 CFR 60 Subpart Da, Db (exempt by heat input rate); 40 CFR 60 Subpart Dc (exempt by date)	1986
38: Extrusion	401 KAR 59:010	None	1987
39: Extrusion	401 KAR 59:010	None	1984
40: Extrusion	401 KAR 61:020	None	1974
41: Reboiler	None	None	1974
42: Electric Fluid Heater	None	None	1957

<b><u>EMISSION POINT</u></b>	<b><u>APPLICABLE REGULATION</u></b>	<b><u>REGULATORY EXEMPTIONS</u></b>	<b><u>CONSTRUCTION DATE</u></b>
43: Electric Fluid Heater	None	None	1964
44: Electric Fluid Heater	None	None	1977
45: Electric Fluid Heater	None	None	1989
46: Emergency Electric Generator	None	None	1984
47: Cold Cleaning Degreaser	401 KAR 59:185	40 CFR 63 Subpart T (exempt due to concentration less than 5% by weight)	1986
48: Quality Control Laboratory	None	None	1988
49: R & D Laboratory	None	None	1988

**CREDIBLE EVIDENCE:**

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.